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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1

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**Complete if Known**

Application Number	10/720,462
Filing Date	11/24/2003
First Named Inventor	Boyd et al.
Art Unit	1614
Examiner Name	Lezah W. Roberts
Attorney Docket Number	7052-01-US-OC

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 919,736	04-01-1909	Loesch	
		US- 1,429,405	09-01-1922	Carter et al.	
		US- 1,605,903	11-01-1926	Schuler	
		US- 1,785,078	12-01-1930	Gibson	
		US- 1,947,124	02-01-1934	Clauss	
		US- 2,062,867	12-01-1936	Cosier	
		US- 2,137,170	11-01-1938	Levey	
		US- 2,353,594	07-01-1944	Seagren	
		US- 2,394,322	02-01-1946	McKee	
		US- 2,526,811	10-01-1950	Dawson	
		US- 2,610,588	09-01-1952	Seagren et al.	
		US- 2,624,277	01-01-1953	Sunkoz	
		US- 2,645,049	07-01-1953	Brown	
		US- 2,791,960	05-01-1957	Pietropinto	
		US- 2,846,314	08-01-1958	Aichele et al.	
		US- 2,895,832	07-01-1959	Bersey	
		US- 3,009,812	11-01-1961	Ganz	
		US- 3,711,604	01-01-1973	Cologney et al.	
		US- 3,852,494	12-01-1974	Williamson	

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		Country Code <sup>1</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		WO 2001/080823	11-01-2001	PCT		
		WO 2003/034979	05-01-2003	PCT		
		WO 2000/018365	04-06-2000	PCT		
		982946	02-03-1976	CA		

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		US- 3,934,000	01-01-1976	Barth	
		US- 3,951,821	04-20-1976	Davidson	
		US- 3,954,961	05-01-1976	Colodney et al.	
		US- 3,957,964	05-01-1976	Grimm, III, John Edward	
		US- 3,957,968	05-01-1976	Cordon	
		US- 4,075,316	02-01-1978	Cordon	
		US- 4,285,978	08-01-1981	Quinlivan	
		US- 4,597,959	07-01-1986	Barr	
		US- 4,642,197	02-10-1987	Kruse et al.	
		US- 4,650,685	03-01-1987	Persson et al.	
		US- 4,837,008	06-06-1989	Rudy et al.	
		US- 4,849,212	07-01-1989	Glandorf et al.	
		US- 4,876,092	10-24-1989	Mizobuchi et al.	
		US- 4,897,258	01-30-1990	Rudy et al.	
		US- 4,956,404	09-01-1990	Pelzig	
		US- 4,971,782	11-20-1990	Rudy et al.	
		US- 5,017,394	05-01-1991	Macpherson et al.	
		US- 5,035,906	07-01-1991	Persson et al.	
		US- 5,047,244	09-10-1991	Sanvordeker et al.	

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		US- 5,071,704	12-10-1991	Fischel-Ghodsian	
		US- 5,447,584	09-01-1995	Shakespeare et al.	
		US- 5,455,043	10-03-1995	Fischel-Ghodsian	
		US- 5,616,315	04-01-1997	Masterman et al.	
		US- 5,643,603	07-01-1997	Bottenberg et al.	
		US- 5,700,449	12-23-1997	Katayama et al.	
		US- 5,700,478	12-23-1997	Biegajski et al.	
		US- 5,792,446	08-11-1998	Ashley	
		US- 5,866,531	02-02-1999	Assmann et al.	
		US- 5,900,399	05-04-1999	Seiter et al.	
		US- 5,931,999	08-01-1999	Aisner	
		US- 5,948,430	09-07-1999	Zerbe et al.	
		US- 5,958,525	09-01-1999	Green et al.	
		US- 5,990,058	11-23-1999	Bac et al.	
		US- 5,990,205	11-01-1999	Cordova	
		US- 6,007,795	12-28-1999	Masterman et al.	
		US- 6,051,059	04-01-2000	Aisner	
		US- 6,210,699	04-03-2001	Acharya et al.	
		US- 6,221,832	04-24-2001	Casteel et al.	

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		US- 6,232,285	05-15-2001	Casteel et al.	
		US- 6,251,452	06-01-2001	Weinstein et al.	
		US- 6,258,342	07-01-2001	Harcum et al.	
		US- 6,258,343	07-10-2001	Hiczek, Sr. et al.	
		US- 6,419,903	07-16-2002	Xu et al.	
		US- 6,451,754	09-17-2002	Rowland et al.	
		US- 6,492,320	12-10-2002	Guo et al.	
		US- 6,506,720	01-14-2003	Blasey et al.	
		US- 6,541,441	04-01-2003	Mumoli	
		US- 6,544,943	04-08-2003	Ricci et al.	
		US- 6,548,473	04-15-2003	Jacques Kamel Thoen et al.	
		US- 6,586,013	07-01-2003	Victor	
		US- 6,589,924	07-08-2003	Schmidt et al.	
		US- 6,596,298	07-22-2003	Leung et al.	
		US- 6,664,225	12-16-2003	Mumoli	
		US- 6,669,929	12-30-2003	Boyd et al.	
		US- 6,682,756	01-27-2004	Horstmann et al.	
		US- 2002/0001569	01-03-2002	Dromard et al.	
		US- 2002/0048553	04-25-2002	Baumgartner	

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